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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,147	10/20/2003	Fang Zhu	MIC-44 (P50-0107)	3891
22827	7590	12/16/2004	EXAMINER	
DORITY & MANNING, P.A. POST OFFICE BOX 1449 GREENVILLE, SC 29602-1449			ALLEN, ANDRE J	
			ART UNIT	PAPER NUMBER
			2855	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/689,147	Applicant(s) ZHU, FANG	
	Examiner Andre J. Allen	Art Unit 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 17-36 is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10-20-03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 9-12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Toyo Rubber IND (JP-141615A). in view of (applicants admitted prior art) AAPA.

Regarding claims 9 and 12 Toyo Rubber Ind. teaches providing a manufactured tire; rotating the manufactured tire at a first predetermined rotational speed (abstract) and obtaining at least one first force measurement (abstract); rotating the manufactured tire at a second predetermined rotational speed (abstract); and variation for the manufactured tire on the overall tire high speed uniformity (abstract). Toyo Rubber Ind. does not explicitly teach a plurality

of layers and obtaining a radial run out measurement. AAPA teaches obtaining at least one radial run out measurement [¶ 005]. It would have been obvious to a person having ordinary skill in the art of evaluating uniformity of a tire at the time the invention was made to modify the apparatus taught by Toyo Rubber with the additional step of obtaining radial run out as taught by AAPA for the purpose of using speed to determine high speed uniformity.

With respect to a plurality of layers since Toyo Rubber as modified by AAPA at least teaches the claimed method and clearly suggest at least one layer, it would have been obvious to a person having ordinary skill in the art of evaluating uniformity of a tire at the time the invention was made to implement the methods taught by Toyo Rubber as modified by AAPA within a plurality of layers since it has been held that omission of an element where the remaining elements perform the same function as before involves only routine skill in the art. *IN re Karlson*, 136 USPQ 184. In this particular case it appears since Toyo Rubber as modified by AAPA teaches obtaining the same speed and force characteristics of a tire and since they do not explicitly show a plurality of layers, the same functions are being performed.

Regarding claims 10 and 11 Toyo Rubber as modified by AAPA does not teach rotational speeds of 600 rotations per minute or less than 180 rotations per minute, since Toyo Rubber as modified by AAPA teaches rotational speeds, it would have been obvious to a person having ordinary skill in the art of tire uniformity testing to obtain the most optimum rotational speeds, since it has been held that where the general conditions of a claim are disclosed in the prior art

discovering the optimum or workable ranges involves only routine skill in the art.

In re Aller, 105 USPQ 233

Allowable Subject Matter

2. Claims 1-8 and 17-36 are allowed.

The following is an examiner's statement of reasons for allowance: The cited prior art does not disclose nor suggest considering decomposing said first and second sets of radial run out measurements into multiple respective harmonics, calculating mass uneven distribution coefficients from the decomposed radial run out measurements and determining the size and location of any mass unbalance existent in the given tire..

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 13 and 14-16 based on the dependency of 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The cited prior art does not disclose nor suggest decomposing the at least one second force measurement into multiple harmonics.

Conclusion

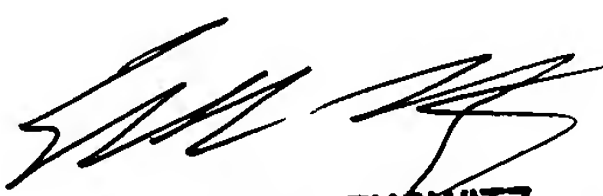
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patent 6513372 teaches a tire uniformity apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre J. Allen whose telephone number is 571-272-2174. The examiner can normally be reached on mon-fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andre Allen
Patent Examiner
Art Unit 2855


EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800